

Operational Activity Hierarchy w/Definitions

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A MANAGE THE DEPARTMENT OF DEFENSE BUSINESS MISSION - This activity supports the Department of Defense business mission areas that deal with all aspects of planning, acquiring, using and disposing, terminating, or separating of goods and services, assets and human resources through accurate financial management, asset management and human resource management.

A1 PERFORM PLANNING This activity determines, identifies, establishes, and allocates strategic direction, identifying and establishing defense programs and processes, and allocating resources (capital and labor) among those programs and processes to perform DoD's mission.

A11 CONDUCT STRATEGIC PLANNING This activity develops strategic goals, objectives and the associated products to achieve the organization's mission for a specified time period. These are reflected in strategic plans, capabilities, and assessments.

A12 DEVELOP PLANNING AND RESOURCE GUIDANCE This activity produces direction or policy for the business activities based on the strategic goals and objectives.

A13 FORMULATE PROGRAM AND BUDGET This activity develops, justifies and defends the program and budget at all levels of DoD.

A14 DEVELOP RESOURCE AND PERFORMANCE PLAN This activity translates strategic plans, guidance, and requirements into detailed plans to execute programs and to describe what business activities will be executed and what is the expected outcome. This activity also develops the resource and performance plan to achieve specific business operations and program goals, objectives, and performance. Plans are maintained and updated based upon receipt of the program and funding document, management reviews, fact of life changes, or contingency operations. Plans describe business programs in terms of performance levels, outcomes, and expected risks.

A15 DEVELOP REQUIREMENTS STRATEGY This activity assesses requirements and develops strategies to acquire or source these requirements, including forecasting costs, identifying risks, and any related selection or negotiation criteria.

A16 ALLOCATE RESOURCES This activity distributes approved DoD resources or adjustments (e.g., reprogramming and supplemental) within guidelines provided by statute, policy, and regulation. This includes distribution of resources from OSD to DoD components and subsequent distribution to lower echelon commands down to the lowest level designated. This activity comprises the process of allocating and sub-allocating resources, End Strength, and other targets.

A2 MONITOR PERFORMANCE OF THE DEPARTMENT OF DEFENSE BUSINESS MISSION This activity measures progress towards satisfying the strategic objectives of the Department of Defense Business Mission.

A3 CONDUCT SOURCING Once the plan identifies potential providers, solicitation strategies and establishes selection criteria, this activity establishes sourcing vehicles, requests proposals, reviews bids, selects providers and issues contracts. This activity also tracks, monitors and closes out contracts and ensures that vendors and/or service providers are meeting terms and conditions and other requirements. Finally, this activity is responsible for executing acquisition business plans of Department of Defense by managing programs.

A31 EXECUTE ACQUISITION STRATEGY This activity matches requirements to existing Sourcing and/or Enterprise Contract/Agreements. Enterprise implies multiple vendor options whereas Sourcing is typically for a particular program/vendor (e.g. F18/Boeing). If a new Sourcing or Enterprise Contract/Agreement is required, the requirement to be fulfilled is communicated as a Solicitation, Request for Information, Request for Quote, or Request for Proposal. This activity also includes the evaluation and/or negotiation of proposals resulting in the issuing of a Sourcing or Enterprise Contract/Agreement.

A32 EXECUTE SALES AND PROCUREMENT This activity generates and revises requisitions and implements buying contract/orders and sales contract/orders at all levels (contract, call, line item).

A33 MONITOR SALES AND PROCUREMENT This activity reviews contracts and other information to ensure that buying contract/orders and sales contract/orders compliance has been achieved. Internal and external vendors and/or service providers performance, service deliveries, periods of performance, payment reconciliation and contract closure are all reviewed.

A34 EXECUTE PROGRAM MANAGEMENT This activity manages the elements of the program's resources and risk, integrates government and contractor efforts, and reports program status and issues.

A4 MANAGE PROPERTY AND MATERIEL This activity includes all activities associated with the management and movement of materiel and assets throughout the lifecycle from procurement/acquisition, production, end use and maintenance/sustainment to final disposition.

A41 PERFORM SERVICE BASE OPERATIONS SUPPORT This activity consists of activities that enable the performance of both common and asset level installation support functions including real property services (e.g. space management, utility services, pest control services, pavement clearance services, custodial services, refuse collection, grounds maintenance services, etc), housing management, and common installation support such as BRAC, certain on-base transportation, and other common support services.

A42 PERFORM BUILD AND MAKE AND MAINTENANCE AND SUSTAINMENT OPERATIONS This activity is associated with developing Plant Property and Equipment assets, maintaining them in standard working condition, and extending their capacity, capability, or useful life. Examples of these activities include construction of buildings and facilities and production of equipment, as well as repair, overhaul, restoration, and modernization of these assets.

A43 DELIVER PROPERTY AND MATERIEL This activity satisfies the needs of internal and external customers, as evidenced by orders (i.e. requisitions, purchase orders or contracts), by issuing or transporting inventory and related materials, or capital equipment. Materiel and equipment come under control of the Deliver activity when they are received at the warehouse. The Deliver activity is triggered when an inquiry or order is received from a customer. It includes the care and custody of the goods, picking orders, arranging transportation and issuing or shipping the goods. The Deliver activity is complete when the goods have been received by the consignee, acknowledged and invoiced, and the in transit record has been cleared.

A44 DISPOSE OR RETURN PROPERTY AND MATERIEL This activity sends goods and equipment back into the supply chain when they are received in error, in excess of required quantities, or defective obsolete, damaged, or worn rendering them no longer useful in their current condition. This activity also includes the disposal of real property by demolition or transfer.

A5 PERFORM ENVIRONMENT SAFETY AND OCCUPATIONAL HEALTH SERVICE This activity refers to distinct business areas within DoD that address environmental quality, restoration, range sustainability, occupational health, safety. While each program within these business areas operates in accordance with specific laws, regulations, DoD guidance, service level guidance and best practices, there are sets of common activities operating across these areas. Common activities include identifying and understanding the environment, safety, health or readiness issues, risk assessment, developing solutions, implementing solutions, developing agreements and the conduct of monitoring. Specific business areas addressed are Compliance; the area of environmental management that ensures effective and efficient compliance with existing Federal, host nation, state and local environmental laws and regulations, Pollution Prevention (P2); which seeks to eliminate or reduce pollution at its source and promote recycling. P2 programs are the preferred means of achieving environmental compliance, protecting human health and reducing the use of hazardous materials, and decreasing the volume of solid waste. Conservation; which balances the responsibility of protecting cultural and natural resources with the requirements of military mission support., Clean-up/Restoration; the identification, investigation, research and development, and cleanup of contamination from hazardous substances, pollutants and contaminants and the correction of other environmental damage such as detection and disposal of unexploded ordnance (UXO), which creates an imminent and substantial endangerment to the public health or welfare or to the environment, Safety; which ensures that the Warfighter and the supporting personnel work in an environment that is free from occupational hazards such as improper machine operation, faulty equipment, and other safety related issues, and Occupational/Environmental Health; which ensures that the Warfighter, supporting personnel, and other stakeholders are protected from various health issues that can arise during normal operations.

A6 PERFORM HUMAN RESOURCES MANAGEMENT This activity encompasses all activities associated with entry to/exit from the organization; career development and management; benefits, travel and pay management; and execution of human resource policies, procedures and employee information management.

A61 PERFORM ORGANIZATIONAL MANAGEMENT This activity encompasses all activities associated with managing the human resources infrastructure for Department of Defense (DoD) organizations. This infrastructure supports DoD legal programs, law enforcement programs, individual travel and organizational structures with position specifications. This activity includes managing the implementation of DoD mission plans by formulating force structure, strength projections, accession targets and distributing peacetime authorizations and wartime requirements.

A62 PERFORM PERSONNEL AND PAY MANAGEMENT This activity encompasses all activities associated with entry to/exit from the organization; profile record management; career development and management; execution of human resources policies, procedures, and employee information (profile record and workforce communication) management; and administering, authorizing and calculating pay. This activity includes the following: accession, recruitment, strength management, placement and assignment, position fill management and classification, budget justification, resource utilization projection, adverse action, personnel actions, social actions (including Equal Employment Opportunity programs), personnel administration support, personnel security investigations and clearances, time and attendance tracking, human resources reporting, transition of member/employee, education, training and development, competency management, performance review and administration (including the promotion process). This activity also includes pay administration and policy, leave calculation, annuitant and retirement pay, special pay and entitlements, pay authorization and calculation, pay adjustments, allotments, bonds, garnishments and offsets, Thrift Savings Plan calculation, payroll and tax reporting, travel pay and other reimbursables.

A63 MANAGE BENEFITS This activity is associated with the management of benefits to support Department of Defense Quality of Life programs. This activity also includes indirect compensation, wage supplements, indirect payments, and provision of Morale, Welfare, and Recreation Programs (including Chaplain programs, commissary, exchange, and other Non-Appropriated Fund (NAF) operations). This includes medical, dental, life and long-term insurance; pension/retirement; flexible spending; disability benefits; entitlements; benefits eligibility, including management of housing and educational benefits, enrollment and termination; tracking of health care administrators; savings management (Thrift/Bonds); and benefits reporting.

A7 PROVIDE INFORMATION MANAGEMENT SERVICES This activity involves the coordination of information resources to support or provide a service for or to an organization and its components or users. Information Management Services involves the coordination of information collection, storage, and dissemination and destruction.

A71 PROVIDE KNOWLEDGE MANAGEMENT SERVICES This activity formalizes the management and leveraging of intellectual assets. Knowledge Management is an enterprise discipline that promotes a collaborative and integrated approach to the creation, capture, organization, access and use of information assets, including the tacit, uncaptured knowledge of people. This activity involves programs and activities in which the federal government creates or develops a body or set of knowledge, the manipulation and analysis of which can provide inherent benefits for both the federal and private sector.

A72 PERFORM REPORTING This activity includes the process of receiving financial and management reporting requirements, preparing the information product, and distributing the finished product to the requestor. The activity distributes information in a specified format for analysis and decision-making. This activity routinely involves summarizing and clearly communicating information collected through various means and providing output results based on specified reporting requirements such as format, frequency and type.

A73 MANAGE PUBLIC AFFAIRS This activity involves the exchange of information and communication between the Federal Government, citizens and stakeholders in direct support of citizen services, public policy, and/or national interest.

A74 PROVIDE INFORMATION ASSURANCE SERVICES This activity provides the basis for services that protect and defend information and information systems by ensuring their availability, integrity, authentication, confidentiality, and non-repudiation. This activity also provides for restoration of information systems by incorporating protection, detection, and reaction capabilities.

A8 PERFORM FINANCIAL MANAGEMENT This activity measures, operates and predicts the effectiveness and efficiency of the Department's financial activities in relations to its financial objectives, and includes the responsibility for establishing financial policies, practices, standards and ensuring a system of controls exists that reliably captures and reports activity in a consistent manner.

A81 ANALYZE FUNDS MANAGEMENT This activity manages funds that have been allotted by business plan and tracks subsequent execution of funds by monitoring commitments, obligations, and expenditures.

A82 ADMINISTER ENTITLEMENTS AND SALES This activity encompasses fund validation activities at both the commitment and obligation stages, as well as accounts payable activities associated with commercial pay operations. This activity further encompasses the management of all claims receivable accounts owed to the Department of Defense. This activity also includes the management of accounts receivable related to the sales of goods or services, to include the generation of a billing document.

A83 MANAGE GENERAL LEDGER TRANSACTIONS This activity encompasses accounting for assets, liabilities, fund balances, revenues and expenses associated with the maintenance of federal funds and expenditure of federal appropriations (salaries and expenses, operation and maintenance, procurement, working capital, trust funds, etc.). In accordance with applicable federal standards (FASAB, Treasury, OMB, GAO, etc.) the activity also includes posting all financial transactions to the general ledger, as well as the closing and review processes.

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A84 PERFORM TREASURY OPERATIONS This activity processes disbursements, collections, returns and replacement financial instruments and delinquent receivables for the Department of Defense. This activity also involves the management of securities held for the production of investment revenues, net of premiums and discounts.

A85 PERFORM COST ACCOUNTING This activity provides for the assembling and recording of all the elements of cost incurred to accomplish a purpose, to carry on an activity or operation, or to complete a unit of work or a specific job.

A86 PERFORM FINANCIAL MANAGEMENT GOVERNANCE This activity creates, maintains and disseminates policies, requirements and other directives governing the performance of financial management activities.

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Environment, Safety and Occupational Health

A PERFORM INSTALLATION AND ENVIRONMENT SERVICES - This activity performs several services to manage the Installations, Environment, Safety and Occupational Health needs of the Department of Defense. These services include: Stewardship of DoD Real Property; Stewardship of the Environment; Real Property Asset Valuation and Accountability; Real Property Purchase, Transfer and In-grant; New Footprint Construction; Real Property Disposal; Safety and Occupational Health Operations.

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A1 PERFORM ENVIRONMENT, SAFETY AND OCCUPATIONAL HEALTH OPERATIONS Environment, Safety and Occupational Health Operations refers to

business areas within DoD that address environmental quality, restoration, range sustainability, occupational health, safety as well as fire and emergency services. While each program within these business areas operates in accordance with specific laws, regulations, DoD guidance, service level guidance and best practices, there are sets of common activities operating across these areas. Common activities include identifying and understanding the environment, safety, health or readiness issue, risk assessment, developing solutions, implementing solutions, developing agreements and the conduct of monitoring. Specific business areas addressed are:

Compliance: The compliance business area of environmental management ensures effective and efficient compliance with existing Federal, host nation, state and local environmental laws and regulations. This business area deals with regulators and the base operations community in the several areas (e.g. clean water, clean air, safe drinking water, and reporting community right to know chemical information) to ensure that all laws are abided. The compliance community works with regulators, foreign governments and base operators to inspect/investigate base operations such as waste water treatment, well water, solid waste disposal, pesticides management, etc to ensure compliance in all areas. It also seeks to work with the base operation group to ensure they are aware of all current regulations (Federal, host nation, state and local) so that during a regular installation inspection, the base operator is not found to be in non-compliance.

Pollution Prevention (P2): A successful pollution prevention program can avoid enforcement actions and reduce operation costs. A pollution prevention approach to environmental management seeks to eliminate or reduce pollution at its source and promote recycling. P2 programs are the preferred means of achieving environmental compliance, protecting human health and reducing the use of hazardous materials, and decreasing the volume of solid waste. Pollution prevention programs promote an environmental ethic that actively looks for opportunities to eliminate or reduce environmental impact of DoD activities through better product design, materials substitution, and environmental lifecycle costing considerations. These actions reduce costs by integrating cost-effective pollution prevention practices into all DoD operations and activities, while ensuring the performance of DoD's mission. Pollution Prevention programs include:

- Affirmative Procurement (buy green)
- Solid Waste Diversion and Recycling
- Recycling
- Prevention of Pollution from Ships
- Source Reduction - reducing or eliminating the use of hazardous materials
- Protecting the Ozone Layer
- Hazardous Waste Reduction - reducing hazardous waste generation
- Alternative Fuels, Alternative Fueled Vehicles, and Fuel Efficiency.

Conservation: The conservation business area balances the responsibility of protecting cultural and natural resources with the requirements of military mission support. DoD must maintain healthy resources that offer maximum opportunities to carry out mission activities. First, conservation protects access to the land, sea, and airspace to support DoD requirements for realistic testing and training exercises. Second, it protects the valuable natural and cultural resources of these areas for the benefit of current and future generations (e.g. habitats of threatened or endangered species; areas likely to contain archeological sites; and developed areas likely to contain historical buildings or structures). Also, the conservation area supports long-term sustainment of military training areas and ranges from degradation or encroachment.

Clean-up/Restoration: The Defense Environmental Restoration Program (DERP) has three program categories that focus on DoD's primary goals:

- The identification, investigation, research and development, and cleanup of contamination from hazardous substances, pollutants and contaminants
- Correction of other environmental damage such as detection and disposal of unexploded ordnance (UXO), which creates an imminent and substantial endangerment to the public health or welfare or to the environment
- Demolition and removal of unsafe buildings and structures, including buildings and structures at sites formerly used by or under the jurisdiction of the Secretary of the Department Of Defense

DoD organized the DERP into three program categories:

1. Installation Restoration program (IRP)
2. Military Munitions Response program (MMRP)
3. Building demolition/debris removal (BD/DR)

Under the IRP DoD conducts response actions, similar to those required at old industrial sites and landfills, to address the toxicological risks associated with the release of hazardous substances, pollutants, or contaminants. Munitions response activities, however, are unique to DoD and very complex, as munitions present both potential explosive safety risks and potential toxicological risks from munitions constituents. Although some of the hazards associated with munitions were previously addressed under the IRP, the MMRP will more completely address the cleanup required at sites containing UXO, discarded military munitions, and the chemical constituents of munitions. DoD also addresses a small number of sites that require the demolition and removal of unsafe buildings or structures within the BD/DR category of DERP.

Range Sustainment: The Readiness and Range Preservation Initiative (RRPI) focuses on maintaining and sustaining our military test and training ranges into the future. RRPI is a tripartite program that is managed by the Senior Readiness Oversight Committee (SROC) through an Integrated Product Team (IPT) chaired by the Deputy Under Secretary of Readiness, with the Deputy Under Secretary for Installations & Environment and the Director of Test and Evaluation as co-chairs.

Day-to-day management of the program is by a Working IPT (WIPT). There are five focus areas for this initiative:

- Legislation & Regulation - Initiatives include an eight part legislative package to assist in better management of our ranges. Five of the eight have been passed, with the remaining three still under consideration by Congress
- Leadership & Organization - Initiatives include management of the IPT process and encouraging the Services to maintain range organizations
- Programs - Initiatives include Compatible Land Use Programs with Conservation Non-government Organizations (NGO), States and other interested parties to provide buffers for our ranges
- Policy - A new Range Sustainments Policy, DoD Directive (DoDD) 3200.15 was signed in January 2003 and there are five other policies and instructions being modified or written based on the new Directive.
- Outreach - The IPT has required a multiple level outreach program be put in place at the national, regional and local levels concentrated on sustaining military test and training ranges

Safety: The Safety business area ensures that the Warfighter and the supporting personnel work in an environment that is free from occupational hazards such as improper machine operation, faulty equipment, and other safety related issues. The safety program focuses on all operational aspects as they relate to the Warfighter such as aircraft safety, private vehicle operations, government-owned vehicle operations, and other critical areas. One such critical area is explosives safety. The Safety program has a keen focus on areas such as:

Safety Enforcement - Initiatives include auditing current operational policies to ensure compliance with all safety regulations (e.g., proper usage of equipment, proper storage of hazardous materials, etc)

Risk Mitigation - These initiatives include methods by which activities work to provide a workplace that is free from occupational hazards

Incident Investigation - These initiatives are used to determine the root causes of any occupational accidents

Incident Prevention - These initiatives seek to create a workplace which is free from potential hazards that could create a safety or occupational health incident

Occupational/Environmental Health: Occupational/Environmental Health ensures that the Warfighter, supporting personnel, and other stakeholders are protected from various health issues that can arise during normal operations. The occupational health professionals work to ensure that activities such as paint shops, weapon ranges, and vehicle repair garages are managed so that the risk of exposure to certain containments or other dangerous substances is limited. Accordingly, they also work to examine current business practices to ensure that such activities do not have a detrimental effect to the Warfighter or other key stakeholders. These professionals leverage a wide skill set that includes the collection and laboratory analysis of samples, examination of work process, etc to assist them to improve workplace conditions and mitigate risk. Critically, this group focuses on the areas of enforcement, investigation, and prevention of certain incidents as they relate to a particular activity.

Fire and Emergency Services (FES):

The Fire and Emergency Services program ensures a capable emergency response to fire, hazardous material incidents (including Weapons of Mass

Destruction (WMD)) and emergency medical situations. Additionally, FES aggressively works to prevent emergencies, especially fire. A11 IDENTIFY AND DEFINE

ESOH ASPECT OR ISSUE OF INTEREST This activity reflects the initial actions taken to identify the activities, locations, products, and services where environment, safety and health concerns exist. This activity provides the initial check on the issue to ensure it falls within ESOH purview and collects enough information about the issue to proceed with the additional investigation. The result of this activity is the identification of aspects, issues, and locations of environment, range sustainability, safety, occupational health as well as fire and emergency services concern. For example, this activity may identify issues of cultural or natural resource concern, an aspect of a work area with safety concerns, or a site of interest for restoration. Major activities in this area are: Identify the ESOH Aspect or Issue of Interest, Gather Information on the ESOH Issue, and Determine Environment, Safety and Occupational Health Investigation Need.

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A111 IDENTIFY ENVIRONMENT, SAFETY AND OCCUPATIONAL HEALTH ASPECT OR ISSUE OF INTEREST This activity reviews

initial event, request or action and identifies the aspect or issue of interest and its location. An aspect as defined by the International Organization for Standardization (ISO) 14001 is an "element of an organization's activities, products or services that can interact with the environment". The location may reference a site that requires inspection, site of an accident, spill, or may be the work area (e.g., paint shop) where ESOH concerns exist. Within the context of a cleanup program an aspect or issue of interest may be a site where suspected or actual environmental damage has occurred. An aspect or issue of interest within the context of a safety or occupational health program may be associated with a work area. Program requirements such as requirements for periodic inspection of various activities (e.g. paint shop) may also facilitate the activity of identifying an ESOH issue of interest.

Aspects or issues of interest are identified in several ways.

One may receive notification from government regulatory agencies, DoD organizations, or public sources that potential for environmental concern exists at a location. Issues can also be identified as a result of a routine inspection, an accident, an analysis or a study that highlights ESOH concerns.

A112 GATHER INFORMATION ON ESOH ASPECT OR ISSUE This activity collects the information that will be used in determining which aspects, issues, and areas of interest have potential environment, safety and occupational health concerns. The profile collects enough information to let the ESOH personnel determine whether the issue has merit and moves forward a more formal assessment. Typical actions may include a search of legal records; interviews with landowners and neighbors; scoping meetings; and review of various environment records (e.g., Environment Impact Statements).

The result of this activity is a profile of the aspect or issue of interest that will be considered for additional assessment.

gathered,

A113 DETERMINE ENVIRONMENT, SAFETY AND OCCUPATIONAL HEALTH INVESTIGATION NEED Based on information

ESOH personnel determine whether there is a need for an investigation or inspection of the issue of interest; they may also distinguish areas that pose little or no threat to human health and the environment from areas that require further investigation. The result of this activity is to identify issues of interest that environment, safety, and occupational health authorities may investigate for potential action. This identification is based on a qualitative assessment of all available information.

Depending upon the specific purpose and focus of the program conducting the review, the determination of the need for further investigation or assessment may lead to the identification of a physical area that is designated as a location of ESOH interest.

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A12 ASSESS ENVIRONMENT, SAFETY OR OCCUPATIONAL HEALTH ASPECT This activity is the study or investigation of environment, safety, and occupational health aspects or issues and the determination of the nature and extent of the issue. A series of steps are taken to conduct this activity and can include:

Conduct Environment, Safety and Occupational Health Inspection/Investigation;

Compare Analysis Result to Criteria;

Characterize Nature and Extent of ESOH Issue

This activity is where comprehensive data or sample collection and analysis are conducted. The main outputs of this activity are the characterization of the ESOH issue and a determination of compliance.

A121 CONDUCT ENVIRONMENT, SAFETY, OR OCCUPATIONAL HEALTH INSPECTION OR INVESTIGATION An inspection or investigation is a study or analysis of an environment, safety, or occupational health issue. An investigation is an action taken to qualify, quantify, assess and otherwise understand an issue. An inspection is the review of a base activity to determine compliance with guidance and regulation. This activity includes the collection of ESOH investigation data or samples and the analysis of the collected data or sample.

A1211 REVIEW ENVIRONMENTAL, SAFETY AND OCCUPATIONAL HEALTH ISSUE Examine the issue to ensure one has a firm grasp of issue boundaries. Collect additional information as may be necessary to arrive at an understanding of the issue and that may be needed to develop the assessment approach.

A1212 SELECT OR DEVELOP ASSESSMENT APPROACH Select or develop the approach needed to investigate the issue. The approach developed or selected is dependent upon the issue to be solved. For example, the assessment for a compliance monitoring issue may include selection of field sampling protocols, laboratory sample preparation and analysis protocols, as well as determining the frequency and duration of sampling. This activity may also outline the approach for conducting an inspection.

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A1213 COLLECT ENVIRONMENT, SAFETY AND OCCUPATIONAL HEALTH DATA/SAMPLE Take the samples, measurements, and observations or perform tests otherwise necessary to support empirical analysis based on the assessment approach. This activity collects samples in all mediums (e.g., air, water, soil, tissue); conducts surveys including statistical surveys; takes measurements (e.g., fish weighs 3lb. 2 oz); and makes observations about the environment (e.g., high potential for wildfire, ergonomics, etc). Data collection activities are conducted in accordance with proper sample collection protocol. Sample collection is used across many ESOH programs to identify the nature and extent of an environment or health issue may also be used to support compliance activities.

A1214 ANALYZE ENVIRONMENT, SAFETY AND OCCUPATIONAL HEALTH DATA/SAMPLE Perform the lab tests, survey compilations or otherwise necessary treatment of the data or sample collected to enable analysis. Analysis is performed according to the selected assessment approach.

A122 COMPARE ANALYSIS RESULT TO CRITERIA Compare the analysis result to compliance requirements or program objectives and criteria. The value obtained from the sample or data analysis is compared to compliance requirements, program objectives or other criteria. This comparison result is an important component in characterizing the ESOH issue.

A123 CHARACTERIZE NATURE AND EXTENT OF ESOH ISSUE Analyze the totality of available information to characterize the nature and extent of the ESOH issue. Analyze all the available sample comparison results, risk information regarding the exposed receptors, and information about the affected area to characterize the extent and nature of the issue. This activity also includes developing conclusions regarding the ESOH issue.

A13 ASSESS ENVIRONMENT, SAFETY AND OCCUPATIONAL HEATH RISK/IMPACT This activity assesses the health, safety, ecological, or cultural risk posed by the ESOH aspect under consideration. Risk is defined as the possibility of a hazard causing the possibility of suffering harm or loss. This activity takes the identified ESOH aspect or issue (e.g., ground water plume, paint shop operations, sound exposure) and determines the level of associated risk with the hazard. The risk finding is based on factors such as severity, probability, and availability of pathways, containments, or receptors. An example of an occupational health risk assessment is the determination of the risk to a human from exposure to the contaminants present in a typical paint shop operation. In the case of DoD restoration and clean-up activities, the assessment may focus on risk associated with exposure to contaminated topsoil. For conservation, the assessment may focus on risks associated with excessive erosion, fire hazard associated with excessive vegetation, or properties of noxious invasive species. In a fire or emergency response, the assessment focuses on the probability, severity, and potential scale (e.g., geographical area) of exposures and risk.

A131 SELECT RISK ASSESSMENT APPROACH Select or if not available, develop an approach to determine risk associated with the ESOH issue. The appropriate risk assessment approaches may include predefined models such as a plume dispersion model or maybe a one-time study. These approaches and tools are typically industry and/or governmental developed methodologies (e.g. DoD I 6055.11, ACGIH) for use in the determination of risk levels. Depending on approach, a pathway or receptor analysis can also be a key component in the risk assessment approach.

A132 SELECT STANDARDS ASSOCIATED WITH RISK DETERMINATION This activity selects the standards of comparison used in the risk determination process. These standards are typically developed and managed either via legislative methods (e.g. OSHA) or widely accepted industry standards (ACGIH). These standards are used in the risk characterization to compare the finding of the identified ESOH issue to the standard to assist in the characterization of the risk of the ESOH issue.

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A133 CHARACTERIZE RISK This activity aggregates the components of risk assessment (such as probability and severity) to determine the overall risk of the ESOH issue. This process is both quantitative and qualitative, as it requires the risk assessor to examine the ESOH issue in its totality and take in consideration issues that cannot be quantified. The risk assessor can take into consideration information such as:

- Probability of a hazard occurring;
- Severity of the hazard should the hazardous event occur;
- Other risk characterization methods (e.g. receptors, human factors, etc)

An example of this activity would be when a risk assessor assigns a Risk Assessment Code (RAC) to a particular ESOH issue. Or, it could be an instance where a risk assessor determines the potential and ramifications of a chemical contamination. Another risk assessment could be to determine the risk of an operation (e.g. range operations) to a particular wildlife species or archaeological site.

A14 DEVELOP AND IMPLEMENT ENVIRONMENT, SAFETY AND OCCUPATIONAL HEALTH SOLUTION This activity develops and implements the ESOH solution for the identified aspect or issue of interest. This activity seeks to develop solution alternatives for the identified aspect or issue of interest and takes into consideration other information components such as the risk assessment, characterized ESOH issue, or sample analysis results and develops, tests, and implements a solution that will meet requirements (e.g. effectiveness, cost, socio-economic). These solution alternatives are evaluated by a selected methodology, which can examine several factors such as effectiveness, cost, and socio-economic impact. An example of this activity would be the design and or construction of a new ventilation system to properly circulate and capture harmful fumes in a paint shop. For fire and emergency response actions, this activity would involve the selection and implementation of response procedures, such as alarms, communications, evacuation, site security, personal protective equipment, and decontamination.

The activity is composed of several sub-activities such as:

- Develop ESOH Solution Alternative;
- Determine ESOH Solution Evaluation Methodology;
- Evaluate ESOH Solution Alternative;
- Select ESOH Solution;
- Design ESOH Solution;
- Implement ESOH Solution;
- Assess Action Taken.

A141 DEVELOP, EVALUATE, SELECT ESOH ALTERNATIVE Alternatives are useful to help one understand the various approaches or remedies that may be implemented to mitigate an ESOH issue. Alternatives can also include preventive measures for ESOH issues. In the context of pollution prevention an alternative may include a change to an industrial process, the identification of alternate materials, or recycling of materials. Within the context of the safety domain, an alternative could be the modification of standard operating procedures to incorporate new safety design schemes. Within the context of the DERP program, a feasibility study identifies alternative solutions for remediation which satisfy the constraints of ARARs (appropriate or relevant and appropriate requirements.) Within the context of natural resource conservation, alternative solutions may include changes to prescribe burn regimes, planting of more durable and/or native vegetation, and modifications to the timing of adverse activities. Within the context of a remediation, alternatives analysis help define various actions that are consistent with and support a permanent remedy. This activity develops, evaluates, and selects alternatives for the ESOH aspect under consideration. Components in this activity include:

- n Develop ESOH Solution Alternative
- n Determine ESOH Solution Evaluation Methodology
- n Evaluate ESOH Solution Alternative
- n Select ESOH Solution

A1411 DEVELOP ESOH SOLUTION ALTERNATIVE This activity creates or otherwise identifies a solution to the ESOH issue consistent with issue constraints and boundaries. These solutions are developed based on the empirical data, professional judgment of the ESOH professional, risk analysis, and other critical components. Solutions alternatives in this activity can range from sophisticated remediations that require construction to straightforward additions of chlorine to solve a drinking water issue. For fire and emergency response, the solution alternatives may be prescribed based on the ESOH issue description, and risk characterization.

A1412 DETERMINE ESOH SOLUTION EVALUATION METHODOLOGY This activity determines the approach or methodology to be used in evaluating the merits of solution alternatives. The type of methodologies selected can vary based upon the identified ESOH aspect or issue. In certain circumstances, conducting pilot testing and/or bench testing can be part of this evaluation methodology. Other situations may merit such methodologies such as a detailed empirical review of data, analysis of historical data, etc. The evaluation methodology will help the ESOH professional address such factors as:

- Effectiveness of the solution alternative
- Potential cost of the solution alternative
- Potential socio-economic/cultural impact of the solution

A1413 EVALUATE ESOH SOLUTION ALTERNATIVE This activity examines the merits of the proposed ESOH solution alternative. It applies the selected methodologies (i.e. effectiveness evaluation method, cost model, actuarial techniques, professional judgment, engineering cost estimation, decision analysis techniques) to determine the effectiveness of the solution alternative and/or estimate the cost of the alternative.

A1414 SELECT ESOH SOLUTION This activity compares the available ESOH action alternatives and selects the alternative to implement. The output of this activity can include the following:

The selection of the alternative and a thorough documentation of the method used to make estimates, especially when the method used is a computer model not validated per DoDI, such as an engineering study or estimate.

The development of a plan that meets the statutory and regulatory requirements such as NEPA, EPA regulations, etc.

A142 DESIGN AND IMPLEMENT ESOH SOLUTION This activity encompasses the design and implementation of the selected ESOH solution. An ESOH solution may include:

- Taking a corrective action to return a compliance condition;
- Implementing a long term clean-up and restoration project;
- Implementing a cultural, historical or natural resource management plan;
- Performing a fire or emergency response;
- Taking action to eliminate or reduce a health/safety condition;
- Changing an industrial process or material to prevent pollution;

Some solution alternatives may require detailed design of the chosen solution and others may be straightforward actions.

A1421 DESIGN ESOH SOLUTION This activity takes the selected ESOH solution as input and designs the actual solution that will be implemented. For instance, this activity can develop such tangible products such as construction parameters, equipment specifications, or new policies and procedures.

A1422 IMPLEMENT ESOH SOLUTION This activity takes the solution and conducts the actual implementation. Actions within this activity may include construction, operational changes, environmental source removal, process change and emergency response procedures.

A1423 ASSESS ACTION TAKEN This activity evaluates the effectiveness the action taken or makes the determination of whether the action taken requires maintenance. The action assessment monitors progress and takes steps necessary to ensure conformance with the planned remedy. For a fire or emergency response situation, the assessment includes post-event monitoring for exposures and required medical treatment.

A15 CONDUCT ESOH CONSULTATION AND DEVELOP AGREEMENT INSTRUMENT Within the context of this model, an agreement is broadly defined as an instrument with agreed upon terms and conditions that govern the operational behavior, design, technology, and reporting requirements of the subject operation or facility. An agreement may be a permit, license, management plan, exemption or other operating agreement/certification. Consultation is the process of conferring with regulating or permitting authorities, as well as the public and other external stakeholders. A common example of an agreement is when a facility is issued a permit to discharge a pollutant in a prescribed amount over a specified time period. Permits may also authorize facilities to process, dispose, incinerate, and conduct storage activities. The terms and conditions of the permit specify how the subject facility, operation or organization must perform. Further the terms and conditions may specify facility design, detail operation and maintenance requirements, define standard operating procedures, lay out safety requirements, prescribe monitoring and reporting requirements or specify other activities that the subject must perform to conform to the agreement. Agreements may also take other forms such as a license, exemption, or operating agreement/certificate. For example, in the safety area, the agreement could take the form of a set of agreed upon operating conditions that specifies use of protective gear and limit the time a worker can be exposed to a hazard. Overall the term 'agreement' is broadly construed to represent the various types and forms of agreement that govern an activity ranging from an exemption based on information in the Integrated Cultural or Natural Resource Management Plan to a wastewater treatment plant operating permit to discharge.

Key steps in developing an ESOH agreement are: Determine Need for Agreement Instrument and Consultation Type; Develop Agreement Instrument or Complete Application; and Review Input from Regulating or Permitting Authority, the Public and other External Stakeholders.

A151 DETERMINE NEED FOR AGREEMENT INSTRUMENT AND CONSULTATION TYPE This activity determines the need for an instrument of agreement and determines the type of consultation required. Within the context of this model, an agreement is broadly defined as an instrument with agreed upon terms and conditions that govern the operational behavior, design, technology, and reporting requirements of the subject operation or facility. An agreement may be a permit, license, exemption, or an operating agreement. A common example of an agreement is when a facility or other permitted agent has a permit to discharge a maximum amount of pollutant or a cumulative amount over a specified time period. Permits may also authorize facilities to process, incinerate, and conduct landfill activities. The terms and conditions of an agreement specify how the subject facility, operation or organization must perform. The terms and conditions may specify facility design, operation and maintenance requirements, define standard operating procedures, lay out safety requirements, prescribe monitoring and reporting requirements and specify other activities that the subject must perform to conform to the agreement.

The output of this activity is a determination as to the need for an agreement and the type of consultation required. It reviews the appropriate laws, rules, regulations and governing documents to confirm that some agreement among participants is necessary (e.g., a permit is required).

A152 DEVELOP AGREEMENT INSTRUMENT OR COMPLETE APPLICATION This activity gathers all the necessary information and develops the agreement and consultation instrument. For agreements where permit applications exist this activity is where the application is completed. In many cases, comments from internal or external governing bodies and the public are key considerations that affect the terms and conditions of the agreement. The permit, license, operational conditions or exemptions process outlines terms and conditions that may address:

- How the facility will be designed, constructed, maintained, and operated to be protective of public health and the environment;
- Biological assessments to show proposed actions will not jeopardize the continued existence of listed species;
- How any emergencies and spills will be handled, should they occur;
- How the facility will clean up and finance any environmental contamination;
- How the facility will close and clean up once it is no longer operating.

Example activities in the development of an agreement include, deriving appropriate effluent limitations based on applicable technology and water quality standards for a National Pollutant Discharge Elimination System (NPDES) permit. Example activities in the case of conservation may include the identification of potentially affected species in a biological assessment of the effects of proposed actions.

A153 REVIEW INPUT FROM REGULATING AUTHORITY, PUBLIC AND OTHER EXTERNAL STAKEHOLDERS This activity reviews input from regulatory and permitting authorities as well as the public and identifies any deficiencies in the agreement. If there are no deficiencies, this activity results in the completed agreement. However, if deficiencies are identified the permittee or agreement requestor responds to the deficiency by further developing the agreement until a set of terms and conditions are accepted and approved. Given the complex and technical nature of some submittals, the review and revision process may take several years.

A2 PERFORM INSTALLATION SERVICES